No. *200100271*

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Mississippi Agricultural and Forestry Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR ...TING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ...URPOSE , OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE ...R USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PR... THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'MISCOT 8839'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventh day of August, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

...l Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1 NAME OF OWNER
Mississippi Agricultural and Forestry Experiment Station

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
8839-3-10-2

3. VARIETY NAME
MISCOT 8839

4 ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
Vance H. Watson, Director
Box 9740
Mississippi State, MS 39762-9740

5. TELEPHONE *(include area code)*
662-325-3000

6. FAX *(include area code)*
662-325-3001

FOR OFFICIAL USE ONLY

PVPO NUMBER
200100271

FILING DATE
09/05/2001

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
State Agency

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

9. DATE OF INCORPORATION

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Mississippi Agricultural and Forestry Experiment Station
Vance H. Watson, Director
Box 9740
Mississippi State, MS 39762-9740

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2705.-
DATE 09/05/2001

CERTIFICATION FEE:
$ 768.00
DATE 4/28/06

11. TELEPHONE *(include area code)*
662-325-~~3000~~ 0868 LAW 7/19/04

12. FAX *(include area code)*
662-325-3001

13. E_MAIL
watson@mafes.msstate.edu

14. CROP KIND *(Common Name)*
Cotton

15 GENUS AND SPECIES NAME OF CROP
Gossypium hirsutum

16. FAMILY NAME *(Botanical)*
Malvacae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no," go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER
Vance H. Watson

NAME *(Please print or type)*
Mississippi Agricultural and Forestry Experiment Station

CAPACITY OR TITLE
Vance H. Watson, Director

DATE

SIGNATURE OF OWNER

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

20010027/

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable *(In the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,705 ($320 filing fee and $2,385 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $320 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

ITEM

18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

21. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed/ls-sd.htm

S&T-470 (04-01) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (02-99) which is obsolete.

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EXHIBIT A Origin and Breeding History

1. Genealogy

MISCOT 8839 originated from a cross developed at Mississippi State University in 1988 between the commercial cultivars DES 119 and Deltapine Acala 90 (DPL 90). The pedigree plant breeding method was utilized in development. Cultivar DES 119, currently obsolete, was a widely adapted high yielding Upland cotton developed from a cross between cultivar DES 24 and the strain DES 2134-047. Cultivar DPL 90 is an Upland cotton and is recognized for very desirable fiber qualities. Cultivar DPL 90 was developed from a cross between DP 6516 and DP 6582. The pedigree of DPL 90 includes a parent of the Acala family of cottons which are recognized for their superior fiber quality traits. An individual F2 plant, designated 8839-3, was selected and planted to an F2:F3 progeny row in 1990. A individual F3 plant, designated 8839-3-10, was planted to an F3:F4 progeny row in 1991, bulk harvested, and advanced to the F7 generation. In 1994, a single F3:F7 plant was selected and given the designation 8839-3-10-2. Following seed increase and extensive testing, 8839-3-10-2 was given the varietal designation MISCOT 8839 in 2001.

2. Selection and Multiplication

YEAR	GENERATION	SELECTION	LOCATION
1988	F0	Initial cross	MSU[†]
1988-9	F1	F1 Bulked	MSU - Greenhouse
1989	F2	Single plant selected for reduced leaf hairs and high fiber strength and length quality traits	MSU
1990	F2:F3	Single plant selected within high yielding progeny for superior fiber strength and length quality traits	MSU
1991	F3:F4	Bulk harvest - no selection	Stoneville, MS
1992	F3:F5	Bulk harvest - no selection	Stoneville, MS
1993	F3:F6	Bulk harvest - no selection	MSU
1994	F3:F7	Single plant selected for sparse leaf hairs and superior fiber length and strength quality traits	MSU
1995	F7:F8	Bulk harvest - no selection	Brooksville, MS
1996	F9	Bulk/Rogue off-types	Brooksville, MS
1997	F10	Bulk/Rogue off-types	Brooksville, MS
1998-2000	F11-F13	Breeder Increase (selected for yield and fiber quality performance)	MSU

[†]Mississippi State, MS

EXHIBIT A (Continued) **Origin and Breeding History**

3. Uniformity and Stability

MISCOT 8839 has been observed for four years in replicated yield testing and has been found to be stable and uniform for all morphological traits.

4. Frequency of Variants

Plants of MISCOT 8839 are characterized as having normal leaves and bracts, and a sparse pubescence of the bottom leaf surface. Most leaf hairs present occur on mid-veins. A low frequency of plants with okra-leaf and the frego bract trait (less than 1 percent) have been observed and are described as variants.

EXHIBIT B Statement of Distinctness

MISCOT 8839 is an Upland variety with an open/loose boll suitable for picker-type harvesting. Stripper varieties are distinguished primarily by a more compact boll. Upland picker varieties are distinguished from Acala-type varieties primarily by earlier maturity, shorter fiber length, and reduced fiber strength.

MISCOT 8839 is different from all other picker-type varieties in both agronomic and fiber properties. Stoneville 474 was used a comparison check variety because of it's similarities with MISCOT 8839. Agronomically, Stoneville 474 was the highest yielding commercial variety available at the initiation of testing.

MISCOT 8839 is most similar to Stoneville 474 except for an increased lint yield, seed index, fiber length, height/node ratio, and a reduced lint percentage, fiber strength, micronaire, fiber elongation, node of first fruiting branch (fruiting node), and total number of nodes.

Novelty of MISCOT 8839 is claimed based upon significant differences for the following characters compared to Stoneville 474 (LSD p=0.05).

Characteristics of MISCOT 8839	**Compared to STONEVILLE 474:**	**TABLES**
Lint Yield	greater	1
Lint Percent	less	2
Seed Index	greater	3
Fiber Length	greater	5
Micronaire	less	6
Fiber Elongation	less	7
Summary for Yield, Fiber, and Seed Index		8
Fruiting Node	less	9
Total Nodes	less	9
Height/Node Ratio	greater	9

EXHIBIT B (continued)

List of tables comparing MISCOT 8839 with Stoneville 474 and Suregrow 501.

TABLE	TITLE	YEAR	LOC
1	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for lint yield in 10 environments.	1999 2000	MS
2	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for lint percentage in 20 environments.	1999 2000	MS
3	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for seed index in 16 environments.	1999 2000	MS
4	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber strength in 20 environments.	1999 2000	MS
5	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber length in 20 environments.	1999 2000	MS
6	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber micronaire in 20 environments.	1999 2000	MS
7	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber elongation in 20 environments.	1999 2000	MS
8	Summary of means for yield and fiber traits for MISCOT 8839 .	1999 2000	MS
9	Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fruiting node, total nodes, and height to node ratio in two environments.	1999-2000	MS

EXHIBIT C
(COTTON)

U.S. DEPARTMENT OF AGRICULTURE
PLANT VARIETY PROTECTION OFFICE, AMS, USDA
NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 500
10301 BALTIMORE Blvd.
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Mississippi Agricultural and Forestry Experiment Station	8839-3-10-2	MISCOT 8839

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)
Vance H. Watson, Director
Box 9740
Mississippi State, MS 39762-9740

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PVPO NUMBER
20010027I

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk * indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. Stoneville 474 Variety 2. Suregrow 501 Variety 3 _____.

*1. SPECIES:

X *G. hirsutum* L. _____ *G. barbadense* L.

*2. AREA(S) OF ADAPTATION: (A = Adapted, NA = Not Adapted, NT = Not Tested)

A Eastern	A Delta	NT Central	NT Blacklands
NA Plains	NT Western	NA Arizona	NT San Joaquin
____Other (Specify): _____			

3. GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

	Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
Plant Habit: Spreading, Intermediate, Compact	Compact	Compact	Compact	
Foliage: Sparse, Intermediate, Dense	Intermediate	Intermediate	Intermediate	
Stem Lodging: Lodging, Intermediate, Erect	Intermediate	Erect	Erect	
Fruiting Branch: Clustered, Short, Normal	Normal	Normal	Normal	
Growth: Determinate, Intermediate, Indeterminate	Intermediate	Intermediate	Intermediate	
Leaf Color: Greenish yellow, Light green, Medium green, Dark green	Light green	Light green	Light green	

3. GENERAL: (continued)

Boll Shape: Length less than width, Length equal to width, Length more than width	Length > Width	Length > Width	Length > Width	
Boll Breadth: Broadest at base, Broadest at middle	Broadest at base	Broadest at base	Broadest at base	

*4. MATURITY: (50 % Open bolls; Preferred method; Describe method if different method was used.)

% of First Harvest	69.5	69.5	64.4	

5. PLANT:

Cm to 1st Fruiting Branch: (from cotyledonary node)	24.6	26.6	25.8	
No. of Nodes to 1st Fruiting Branch: (excluding cotyledonary node)	5.7	6.9	6.0	
Mature Plant Height cm: (from cotyledonary node to terminal)	89.6	86.5	86.3	

*6. LEAF: Upper most, fully expanded leaf.

Type: Normal, Sub Okra, Okra, Super Okra	Normal	Normal	Normal	
Pubescence: Absent, Sparse, Medium, Dense **OR** Trichomes/cm² (Bottom surface excluding veins)	Sparse	Medium	Sparse	
Nectaries: Present or Absent	Present	Present	Present	

*7. STEM PUBESCENCE:

Glabrous, Intermediate, Hairy	Intermediate	Intermediate	Intermediate	

*8. GLANDS: (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf:	Normal	Normal	Normal	
Stem:	Normal	Normal	Normal	
Calyx Lobe: (normal is absent)	Normal	Normal	Normal	

*9. FLOWER:

Petals: Cream, Yellow	Cream	Cream	Cream	
Pollen: Cream, Yellow	Cream	Cream	Cream	
Petal Spot: Present, Absent				

*10. SEED:

Seed Index: (g/100 seed, fuzzy basis)	10.2	9.5	9.7	
Lint Index: (g lint/100 seeds)				

*11. BOLL:

Lint Percent:				
X Picked ___ Pulled	36.4	39.8	38.4	
OR				
Gin Turnout:				
___ Picked ___ Stripped				
Number of Seeds per Boll				
Grams Seed Cotton per Boll	4.6	4.3	4.6	
Number of Locules per Boll	4-5	4-5	4-5	
Boll Type: (Stormproof, Storm Resistant, Open)	open	open	open	

12. FIBER PROPERTIES:

Specify Method (HVI or other): HVI

* **Length:** (inches, 2.5% SL)	1.13	1.09	1.09	
* **Uniformity:** (%)	83.8	83.8	84.3	
* **Strength,** T1 (g/tex)	28.2	28.9	31.9	
* **Elongation,** E1 (%)	7.5	7.7	8.2	
* **Micronaire:**	4.6	4.8	4.8	
Fineness (Source ___)				
Yarn Tenacity: (cN/tex, 27 tex)				
Yarn Strength: (lbs. 22's)				

13. DISEASES: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

NT *Alternaria macrospora*
NT Anthracnose
NT Ascochyta Blight
NT Bacterial Blight (Race 1)
NT Bacterial Blight (Race 2)
NT Bacterial Blight (Race ___)
NT Diplodia Boll Rot
NT Other (specify) ___

MR Fusarium Wilt
NT Phymatotrichum Root Rot
NT *Pythium* (specify species)
NT *Rhizoctonia solani*
NT Southwestern Cotton Rust
NT Thielayiopsis basicola
MR Verticillium Wilt

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14. NEMATODES, INSECTS AND PESTS: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

NT Root-Knot Nematode

NT Boll Weevil

MR Bollworm

NT Cotton Aphid

NT Cotton Fleahopper

NT Cotton Leafworm

NT Cutworm (specify species):_____

NT Fall Armyworm

_____Other (specify):_____

NT Reniform Nematode

NT Grasshopper (specify species):_____

NT Lygus (specify species):_____

NT Pink Bollworm

NT Spider Mite (specify species):_____

NT Stink Bug (specify species):_____

NT Thrips (specify species):_____

MR Tobacco Bud Worm

15. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes you variety.

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Table 1. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for lint yield in 10 environments.

				Lint Yield lbs/a			
				MISCOT	Suregrow	Stoneville	
YEAR	TEST	Location	n (reps)	8839	501†	474	LSD(0.05)
1999	MSHLOVT	BRK	6	642	583	505	**63**
1999	MSHLOVT	RAY	6	847	744	1093	**212**
1999	MSDLOVT	STV	6	1318	1210	1205	**88**
1999	MSDLOVT	TUNICA	6	1033	722	797	**143**
1999	MSDLOVT	CLARK	6	2271	1614	1631	**258**
1999	MSDLOVT	ROLFRK	6	1403	1607	1448	**138**
1999	MSDLOVT	CHOCT	6	1387	1030	1149	**155**
2000	MSDLOVT	TUNICA	6	1335	1131	1130	**85**
2000	MSDLOVT	TRIB	6	980	978	870	**99**
2000	MSHLOVT	VER	4	1382	1442	1166	**192**
		MEAN‡		**1260a**	**1106b**	**1099b**	**143**

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.

MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

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Table 2. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for lint percentage in 20 environments.

			Lint Percentage %				
				MISCOT	Suregrow†	Stoneville	
YEAR	TEST	LOC	n (reps)	8839	501	474	LSD(0.05)
1999	MSHLOVT	BRK	3	38.0	40.1	40.8	1.2
1999	MSHLOVT	MSU	3	37.5	40.2	41.0	1.1
1999	MSHLOVT	VER	3	38.4	40.3	42.4	1.0
1999	MSHLOVT	DESOT	3	35.4	37.9	38.6	1.0
1999	MSHLOVT	RAY	3	40.0	40.0	41.9	2.0
1999	MSDLOVT	STV	3	36.0	38.2	40.2	1.3
1999	MSDLOVT	TUNICA	3	36.4	37.8	39.0	1.2
1999	MSDLOVT	CLARK	3	35.1	37.8	39.2	1.0
1999	MSDLOVT	ROLFRK	3	33.8	37.5	38.3	1.3
1999	MSDLOVT	CHOCT	3	35.7	38.3	37.4	1.3
2000	MSDLOVT	STV	3	34.7	37.0	38.5	1.7
2000	MSDLOVT	TUNICA	3	37.8	38.6	40.9	1.2
2000	MSDLOVT	CLARK	3	29.1	34.9	35.3	2.3
2000	MSDLOVT	ROLFRK	3	33.5	36.2	36.6	2.4
2000	MSDLOVT	TRIB	3	35.6	36.2	37.3	1.6
2000	MSDLOVT	CHOCT	3	36.4	40.3	41.7	1.6
2000	MSHLOVT	MSU	3	39.4	39.7	42.9	1.7
2000	MSHLOVT	VER	3	38.9	39.6	40.5	1.4
2000	MSHLOVT	HLYSPR	3	38.1	38.1	41.8	1.3
2000	MSHLOVT	NESBIT	3	37.6	38.5	40.8	1.3
		MEAN‡		36.4a	38.4b	39.8c	0.6

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.
MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

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Table 3. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for seed index in 16 environments.

			Seed Index (gms/100 seed)				
				MISCOT	Suregrow†	Stoneville	
YEAR	TEST	LOC	n (reps)	8839	501	474	LSD(0.05)
1999	MSHLOVT	BRK	3	9.0	8.6	8.6	**0.8**
1999	MSHLOVT	MSU	3	10.5	9.1	9.4	**1.0**
1999	MSHLOVT	VER	3	10.3	9.2	8.9	**1.1**
1999	MSHLOVT	DESOT	3	10.7	10.1	9.8	**0.6**
1999	MSHLOVT	RAY	3	9.8	8.5	9.0	**0.7**
1999	MSDLOVT	STV	3	10.2	10.1	9.8	**1.1**
2000	MSDLOVT	STV	3	10.1	9.7	10.3	**1.0**
2000	MSDLOVT	TUNICA	3	9.9	11.3	10.4	**1.4**
2000	MSDLOVT	CLARK	3	10.5	10.3	9.3	**1.1**
2000	MSDLOVT	ROLFRK	3	11.0	9.4	10.3	**1.2**
2000	MSDLOVT	TRIB	3	10.3	10.3	10.3	**1.1**
2000	MSDLOVT	CHOCT	3	10.8	10.7	10.2	**1.3**
2000	MSHLOVT	MSU	3	8.9	9.3	8.6	**0.6**
2000	MSHLOVT	VER	3	10.9	9.4	8.6	**1.2**
2000	MSHLOVT	HLYSPR	3	10.2	9.9	9.5	**1.8**
2000	MSHLOVT	NESBIT	3	9.6	9.5	9.4	**0.8**
		MEAN‡		**10.2a**	**9.7a**	**9.5b**	**0.5**

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.

MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

Table 4. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber strength in 20 environments.

			Fiber Strength (gms/tex)				
				MISCOT	Suregrow†	Stoneville	
YEAR	TEST	Location	n (reps)	8839	501	474	LSD(0.05)
1999	MSHLOVT	BRK	3	30.8	36.2	31.7	1.2
1999	MSHLOVT	MSU	3	31.8	34.3	30.5	1.2
1999	MSHLOVT	VER	3	30.1	36.9	29.3	2.2
1999	MSHLOVT	DESOT	3	29.4	35.1	29.7	1.2
1999	MSHLOVT	RAY	3	26.2	30.3	26.6	1.8
1999	MSDLOVT	STV	3	29.6	31.8	29.9	1.0
1999	MSDLOVT	TUNICA	3	29.2	34.6	29.5	2.0
1999	MSDLOVT	CLARK	3	29.7	33.3	31.0	1.0
1999	MSDLOVT	ROLFRK	3	27.5	32.8	27.5	1.9
1999	MSDLOVT	CHOCT	3	30.2	33.1	30.8	1.1
2000	MSDLOVT	STV	3	28.2	30.1	28.7	1.4
2000	MSDLOVT	TUNICA	3	27.6	29.7	28.9	1.3
2000	MSDLOVT	CLARK	3	28.6	29.1	26.8	1.7
2000	MSDLOVT	ROLFRK	3	27.2	30.0	27.7	1.4
2000	MSDLOVT	TRIB	3	26.0	28.5	26.5	2.6
2000	MSDLOVT	CHOCT	3	28.1	31.5	29.6	1.9
2000	MSHLOVT	MSU	3	26.0	30.3	29.5	2.2
2000	MSHLOVT	VER	3	25.2	30.0	27.0	1.6
2000	MSHLOVT	HLYSPR	3	26.7	29.3	28.1	1.6
2000	MSHLOVT	NESBIT	3	26.4	30.9	29.5	1.7
		MEAN‡		28.2a	31.9b	28.9a	0.7

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.

MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

Table 5. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber length in 20 environments.

				Fiber Length (inches)			
				MISCOT	Suregrow†	Stoneville	
YEAR	TEST	Location	n (reps)	8839	501	474	LSD(0.05)
1999	MSHLOVT	BRK	3	1.08	1.08	1.05	0.02
1999	MSHLOVT	MSU	3	1.18	1.14	1.14	0.02
1999	MSHLOVT	VER	3	1.17	1.14	1.10	0.04
1999	MSHLOVT	DESOT	3	1.18	1.19	1.15	0.02
1999	MSHLOVT	RAY	3	1.03	1.02	1.02	0.05
1999	MSDLOVT	STV	3	1.13	1.10	1.08	0.02
1999	MSDLOVT	TUNICA	3	1.12	1.13	1.08	0.04
1999	MSDLOVT	CLARK	3	1.15	1.13	1.10	0.01
1999	MSDLOVT	ROLFRK	3	1.11	1.13	1.09	0.04
1999	MSDLOVT	CHOCT	3	1.16	1.15	1.14	0.02
2000	MSDLOVT	STV	3	1.16	1.08	1.13	0.04
2000	MSDLOVT	TUNICA	3	1.15	1.04	1.04	0.04
2000	MSDLOVT	CLARK	3	1.13	1.06	1.08	0.04
2000	MSDLOVT	ROLFRK	3	1.17	1.12	1.15	0.04
2000	MSDLOVT	TRIB	3	1.14	1.06	1.10	0.05
2000	MSDLOVT	CHOCT	3	1.13	1.07	1.08	0.04
2000	MSHLOVT	MSU	3	1.06	1.08	1.07	0.04
2000	MSHLOVT	VER	3	1.10	1.05	1.06	0.02
2000	MSHLOVT	HLYSPR	3	1.09	1.05	1.04	0.04
2000	MSHLOVT	NESBIT	3	1.06	1.05	1.03	0.05
		MEAN‡		1.13a	1.09b	1.09b	0.02

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.
MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

Table 6. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber micronaire in 20 environments.

				Micronaire			
				MISCOT	Suregrow†	Stoneville	
YEAR	TEST	Location	n (reps)	8839	501	474	LSD(0.05)
1999	MSHLOVT	BRK	3	4.9	4.8	5.0	**0.23**
1999	MSHLOVT	MSU	3	4.7	4.8	5.0	**0.23**
1999	MSHLOVT	VER	3	4.6	5.0	4.6	**0.32**
1999	MSHLOVT	DESOT	3	4.4	4.7	4.6	**0.25**
1999	MSHLOVT	RAY	3	5.1	5.2	5.2	**0.36**
1999	MSDLOVT	STV	3	4.7	4.9	5.1	**0.26**
1999	MSDLOVT	TUNICA	3	5.0	5.1	5.2	**0.31**
1999	MSDLOVT	CLARK	3	5.2	5.0	5.7	**0.28**
1999	MSDLOVT	ROLFRK	3	4.8	5.2	5.0	**0.39**
1999	MSDLOVT	CHOCT	3	4.5	4.8	4.8	**0.25**
2000	MSDLOVT	STV	3	4.3	4.7	4.8	**0.36**
2000	MSDLOVT	TUNICA	3	4.6	4.9	5.1	**0.36**
2000	MSDLOVT	CLARK	3	3.7	4.3	3.8	**0.48**
2000	MSDLOVT	ROLFRK	3	4.0	4.3	4.2	**0.36**
2000	MSDLOVT	TRIB	3	4.3	4.4	4.3	**0.36**
2000	MSDLOVT	CHOCT	3	4.5	4.9	4.9	**0.36**
2000	MSHLOVT	MSU	3	4.8	5.0	4.9	**0.36**
2000	MSHLOVT	VER	3	4.2	4.6	4.3	**0.36**
2000	MSHLOVT	HLYSPR	3	5.1	5.2	5.5	**0.48**
2000	MSHLOVT	NESBIT	3	4.6	4.8	4.8	**0.48**
		MEAN‡		**4.6a**	**4.8b**	**4.8b**	**0.12**

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.
MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

Table 7. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fiber elongation in 20 environments.

			Fiber Elongation (%)				
				MISCOT	Suregrow†	Stoneville	
YEAR	TEST	Location	n (reps)	8839	501	474	LSD(0.05)
1999	MSHLOVT	BRK	3	7.0	7.2	6.8	**0.39**
1999	MSHLOVT	MSU	3	7.5	8.0	7.4	**0.36**
1999	MSHLOVT	VER	3	6.7	7.5	6.7	**0.49**
1999	MSHLOVT	DESOT	3	7.0	7.8	7.5	**0.45**
1999	MSHLOVT	RAY	3	7.7	7.8	8.0	**0.77**
1999	MSDLOVT	STV	3	6.5	7.4	7.0	**0.38**
1999	MSDLOVT	TUNICA	3	6.2	7.4	6.6	**0.53**
1999	MSDLOVT	CLARK	3	6.9	7.5	6.9	**0.34**
1999	MSDLOVT	ROLFRK	3	6.3	7.1	6.7	**0.38**
1999	MSDLOVT	CHOCT	3	7.2	7.6	7.5	**0.42**
2000	MSDLOVT	STV	3	8.1	8.6	8.2	**0.36**
2000	MSDLOVT	TUNICA	3	8.2	8.6	8.4	**0.36**
2000	MSDLOVT	CLARK	3	7.6	8.3	7.3	**0.48**
2000	MSDLOVT	ROLFRK	3	8.1	8.9	8.3	**0.48**
2000	MSDLOVT	TRIB	3	8.2	8.7	8.4	**0.48**
2000	MSDLOVT	CHOCT	3	8.2	8.9	8.7	**0.48**
2000	MSHLOVT	MSU	3	8.3	9.3	8.5	**0.48**
2000	MSHLOVT	VER	3	7.8	8.4	8.0	**0.36**
2000	MSHLOVT	HLYSPR	3	8.4	9.3	8.4	**0.36**
2000	MSHLOVT	NESBIT	3	8.2	9.4	8.4	**0.48**
		MEAN‡		**7.5a**	**8.2b**	**7.7c**	**0.12**

† Suregrow 501 in 2000 represented by transgenic Suregrow 501BR.

MEAN‡ - Means with same letter are not significantly different according to LSD = 0.05

Table 8. Summary of means for yield and fiber traits for MISCOT 8839 over 20 environments†.

Entry	Lint Yield	Lint Percent	Fiber Stength	Fiber Length	Micronaire	Fiber Elongation	Seed Index
	lbs/a	%	gms/tex	inches	mic	%	gms/100
MISCOT 8839	a‡ 1260	a 36.4	a 28.2	a 1.13	a 4.6	c 7.5	a 10.2
Suregrow 501‡	b 1106	b 38.4	b 31.9	b 1.09	b 4.8	a 8.2	a 9.7
Stoneville 474	b 1099	c 39.8	a 28.9	b 1.09	b 4.8	b 7.7	b 9.5
Mean	**1155**	**38.2**	**29.7**	**1.10**	**4.76**	**7.8**	**9.8**
Entry (Prob. > F)	0.0502	0.0001	0.0001	0.0005	0.0040	0.0001	0.0999
LSD (0.05)	143	0.6	0.7	0.02	0.12	0.12	0.5
CV%	13.2	2.4	3.6	1.9	3.6	2.3	5.4
R-square	0.90	0.97	0.96	0.96	0.96	0.99	0.95

† Lint yield and seed index - 10 and 16 environments, respectively.

‡ Means within same column with different letters are significantly different according to LSD at p = 0.05.

Table 9. Comparison of MISCOT 8839 to Suregrow 501 and Stoneville 474 for fruiting node, total nodes, and height to node ratio in two environments[1].

Entry	Fruiting Node[†]	Total Nodes	HNR[‡]
MISCOT 8839	a[¶] 5.7	a 17.0	a 2.1
STV 474	b 6.9	b 18.3	b 1.8
SG 501	a 6.0	a 17.0	a 2.0
Mean	6.2	17.4	2.0
Reps	12	12	12
Entry (Prob. > F)	0.001	0.012	0.015
LSD (0.05)	0.6	0.9	0.14
C.V.%	12.2	6.6	8.9
R-square	0.40	0.44	0.57

[1]1999 and 2000 MSU Variety Trials.
[†]Node of first fruiting branch.
[‡]Height-to-node ratio.
[¶]Means within same column with different letters are significantly different according to LSD at p = 0.05.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)
Mississippi Agricultural and Forestry Experiment Station

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
8839-3-10-2

3. VARIETY NAME
MISCOT 8839

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*
Box 9740
Mississippi State, MS 39762-9740

5. TELEPHONE *(include area code)*
662-325-3000

6. FAX *(include area code)*
662-325-3001

7. PVPO NUMBER
20010027

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country

10. Is the applicant the original owner? [X] YES [ ] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?
[ ] YES [ ] NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?
[ ] YES [ ] NO If no, give name of country

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:

MISCOT 8839 orginated from a cross made by the Cotton Breeding Program of Mississippi Agricultural & Forestry Experiment Station (MAFES). Subsequent selection, evaluations, and increase was performed solely under the direction of MAFES personnel. The Mississippi Agricultural & Forestry Experiment Station retains all rights and ownership of MISCOT 8839 cotton variety.

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

STD-470-E (07-97) *(Destroy previous editions).*
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